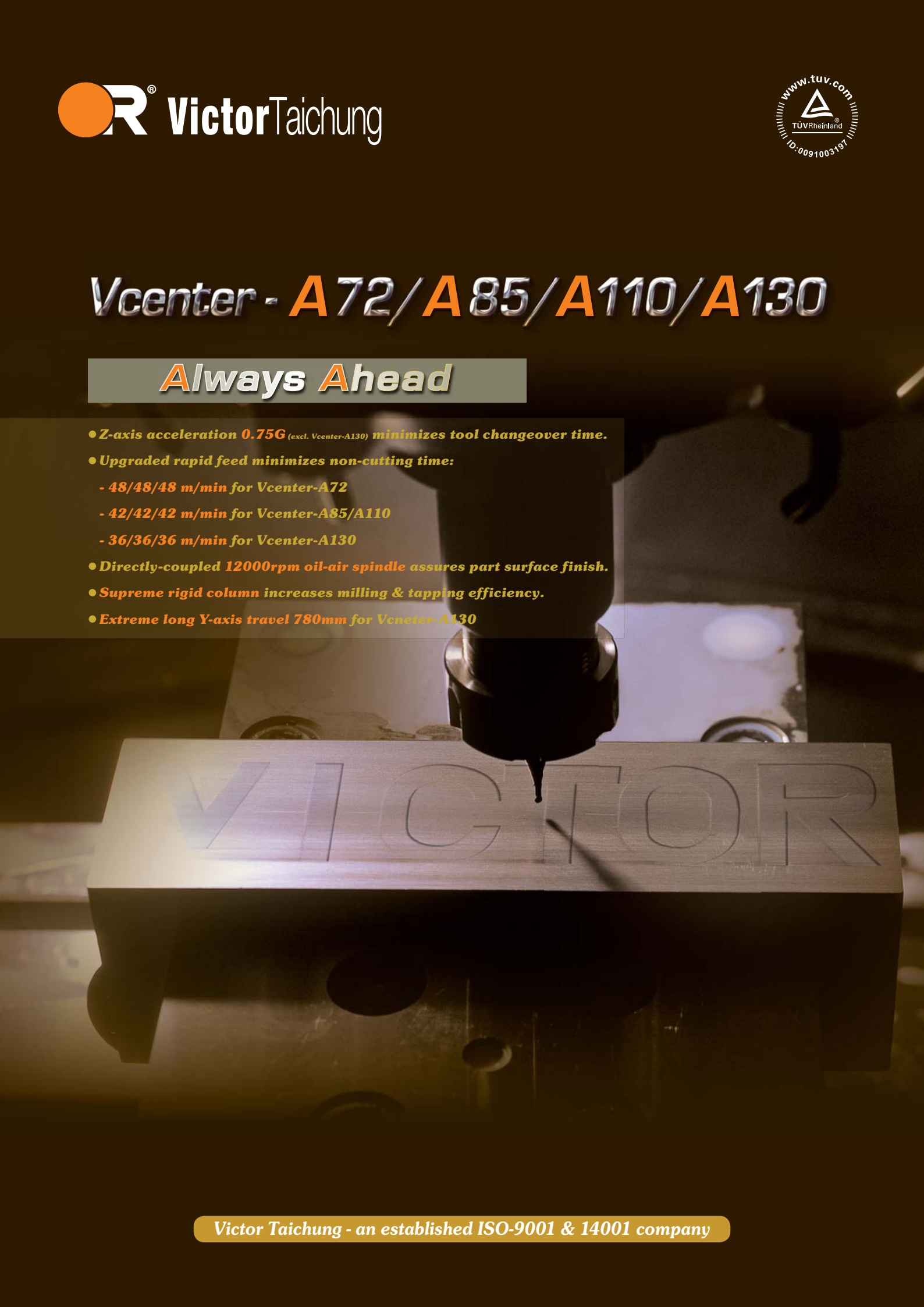
VictorTaichung

www.tuv.com TÜVRheinland ID:0091003197

Vcenter - A72/A85/A110/A130

Always Ahead

- Z-axis acceleration 0.75G (excl. Vcenter-A130) minimizes tool changeover time.
- Upgraded rapid feed minimizes non-cutting time:
  - 48/48/48 m/min for Vcenter-A72
  - 42/42/42 m/min for Vcenter-A85/A110
  - 36/36/36 m/min for Vcenter-A130
- Directly-coupled 12000rpm oil-air spindle assures part surface finish.
- Supreme rigid column increases milling & tapping efficiency.
- Extreme long Y-axis travel 780mm for Vcneter-A130



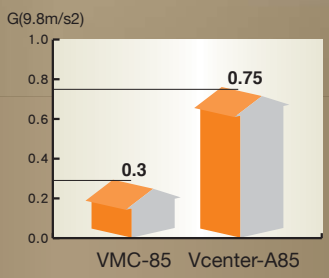
Victor Taichung - an established ISO-9001 & 14001 company

Ahead of Performance

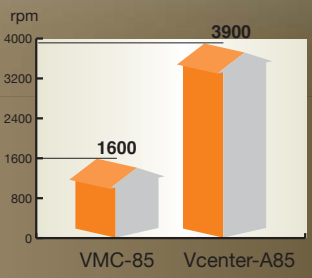
Z-axis acceleration 0.75G for quick tool change

With the structure and specification enhancement on Z-axis acceleration 0.75G (0.6G for Vcenter-A130) and increased rapid feed rate, the new A series Vcenters effectively upgrade the cutting efficiency and performance to pay off higher investment costs.

Z-axis acceleration 150% up!



Tapping* speed 140% up!



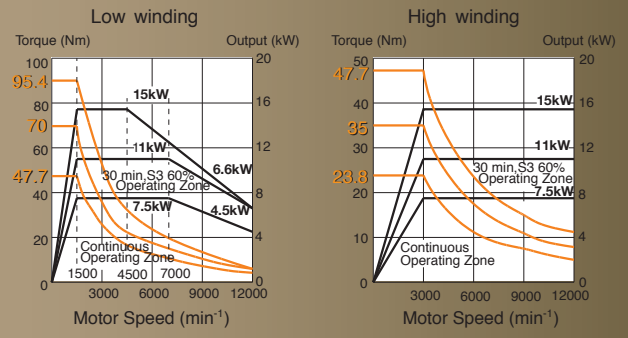
* Tested by tap M6 X P1.0

Victor's own Spindle

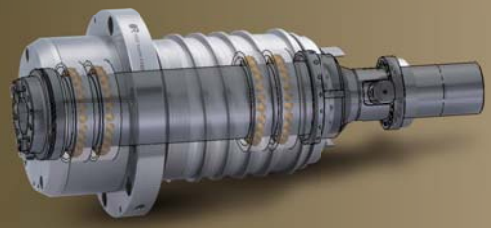
- Every spindle built by Victor Taichung has her own I.D. codes for future service.
- Oil/air lubricated design to spread the oil into the spindle bearings by air ensures sufficient lubrication and longer service life than grease lubricated design.
- Unique spindle bearing layout 4+1 with 25° contact angle for 12000rpm spindle assures high cutting rigidity.
- Optional 2+2 bearing layout with 15° contact angle for 12000/15000rpm spindle facilitates high speed machining continuously.

12000 rpm spindle

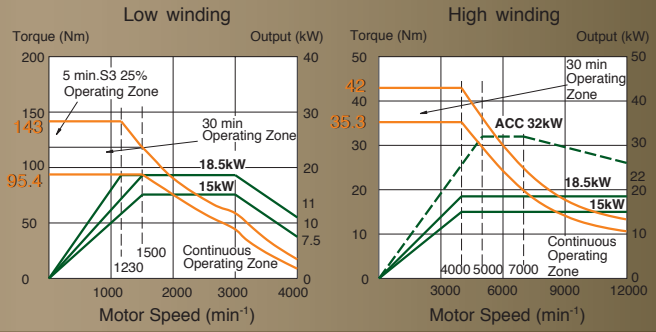
Fanuc αi(T)8/12000i (Standard)



15000 rpm spindle



Fanuc αiL8/15000i (Optional)



Performance Tests on Mild Steel S45C *(tested on Vcenter-A85)*

VICTOR-TAICHUNG

Face mill Ø 80 mm (6 blades)

Metal removal rate:

385 cc/min (by αL8/15000i)
315 cc/min (by αT8/12000i)

Spindle speed: 1500 rpm
Feed rate: 1200 mm/min

Drilling

Capability:

Ø3.5 mm

Spindle speed: 6000 rpm
Feed rate: 180 mm/min

Ø58 mm (with CTS)

Spindle speed: 1200 rpm
Feed rate: 101 mm/min

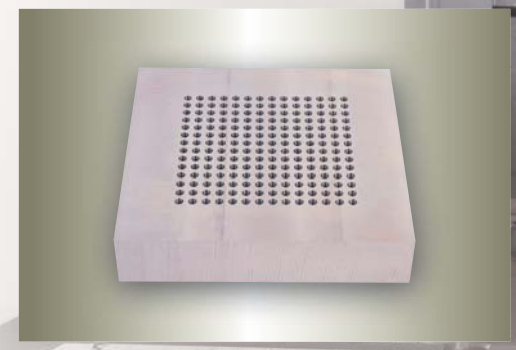
Tapping

Capability:

M33 x P3.5 (by αL8i)
M30 x P3.0 (by αT8i)

Spindle speed: 100 rpm
Feed rate: 300 mm/min

Performance Test: Aluminum AL6061



Mold Steel NAK-80

Tools

T1 : Face mill
T2 : Drill ø4.2 mm
T3 : M5XP0.8 (196 holes)

Cycle Time

27'08" (Vcenter-A85)
cf. 38'30" (Vcenter-85)

Effifiency

42% up!

Package for Mold Machining:

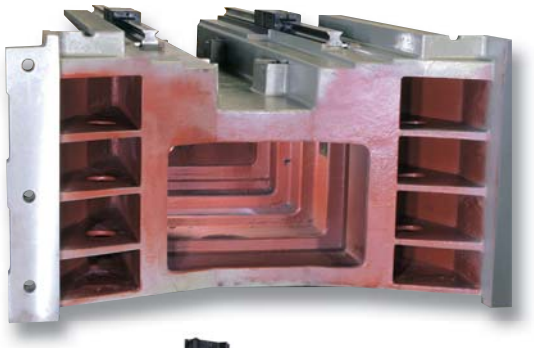
Tested model:	Vcenter-A110
Tool:	Ball mill D6R3 (finish)
Control:	Fanuc 0i-MD + AICC-2 (200 blocks)
Rapid feed rate:	24/24/24 m/min (X/Y/Z)
Feed motor power:	4/4/7 kW (X/Y/Z)

Ahead of Construction

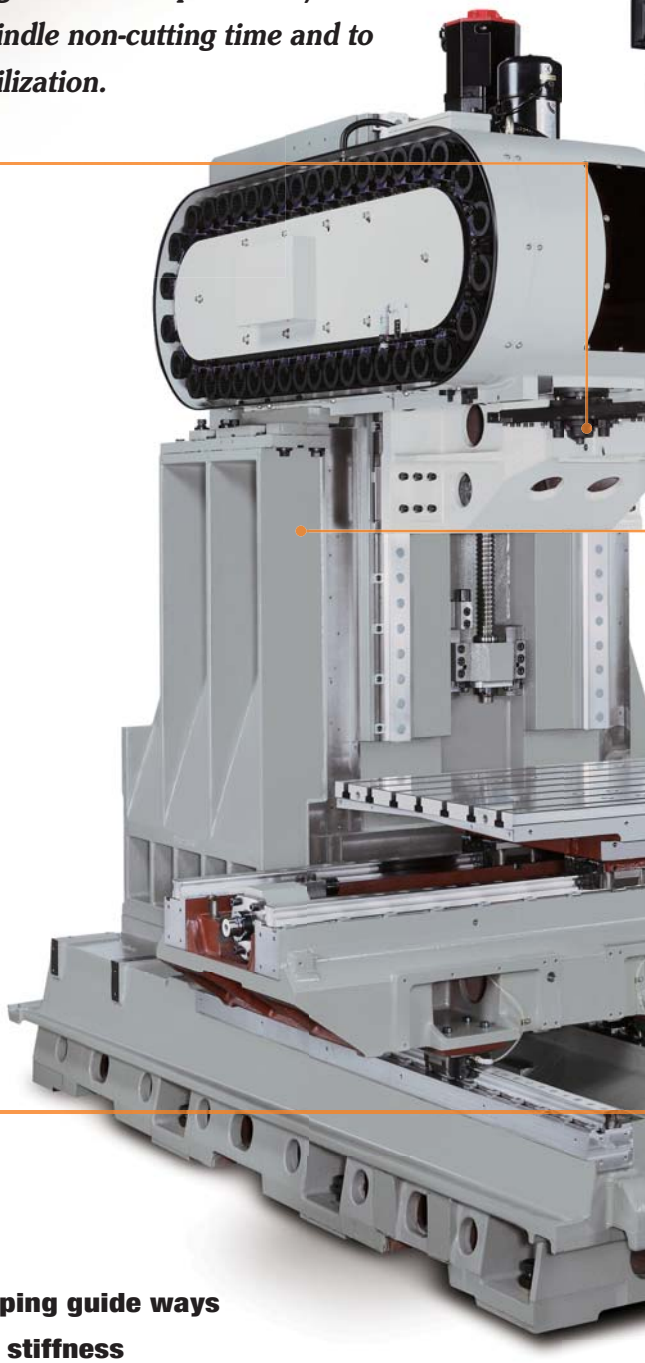
Victor Taichung's new A series models have been launched to set up a new standard for C-framed type VMC. Supreme rigid and tough column enables the Z-axis acceleration 0.75G (except Vcenter-A130 with 0.6G), the new A series Vcenter's present high feed rate up to 48 m/min in all axes to minimize spindle non-cutting time and to maximize spindle utilization.

Tool changeover 5.5 seconds only!

- Twin arm type ATC with bi-directional random selection for 24 tool magazine offers quick tool change and optimal reliability.This tool capacity can be optional increased to 32 or 40 tools for more complicated applications.
- Chip-to-chip tool changeover time is just around 5.5 seconds.
- Upgraded SK-40/BT-40 tooling system linked with the stronger tool pull stud (Ø 14 mm) enhances the heavy cutting capability and outputs more CTS coolants than conventional BT-40 tooling with Ø10 mm pull studs.



- Vcenter-A85/A110



High damping guide ways with high stiffness

- Ballscrew holders are directly cast into the machine for even higher rigidity and strength. This ensures a constant support for the ballscrews over the entire machine life.
- Large diameter ball screws and roller-type linear guides ensure the high structure stiffness during machining.
- Direct coupled servo motors eliminate motor backlash and noise caused by misalignment.

VICTOR-TAICHUNG

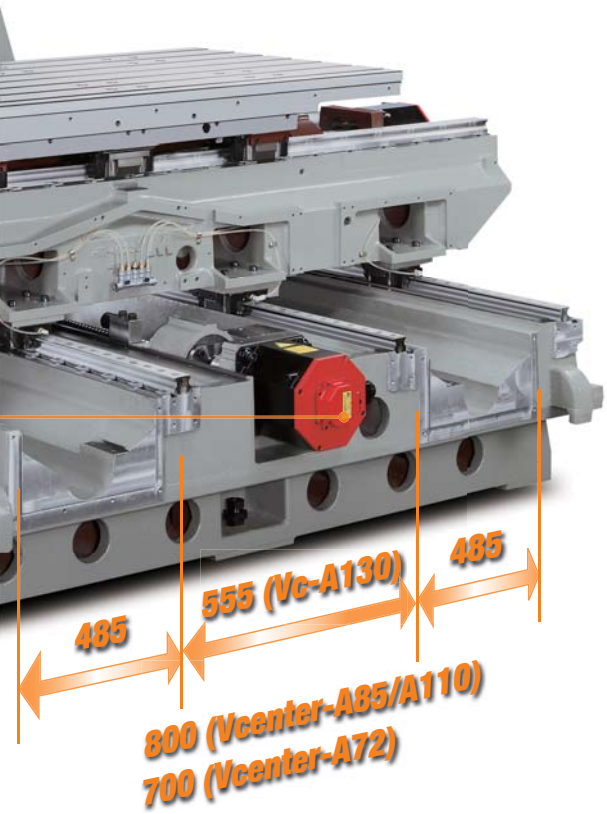
Directly-coupled Spindle (DCS) with high torque spindle motor

- Spindle motor is directly coupled to the spindle to avoid the vibration resulted from belts and enhance surface finish on components.
- 12000 rpm spindle speed with high torque output accommodates both heavy cutting at low rpm and high speed machining.
- Oil-air lubrication with filtration system is used for cooling spindle bearings and according lubrication for ultimate service life on the spindle bearings.
- Air curtain has been added to constantly give the spindle an extra coat of protection.
- Two types of spindle motors meet the power requirement for milling steel and speed requirement for milling Aluminum.

- Vcenter-A72

High rigidity dynamic structure

- Heavy-duty Meehanite® castings from Victor's licensed foundry are used in the bed and column for maximum damping and strength.
- Supreme rigid and tough column with a heavily ribbed design enables the high Z-axis acceleration for high speed movement.
- CAE (computer aided engineering) design with span 800 mm in Y-axis results in a maximum stiffness to ensure the minimum overhang distortion for whole X-axis traveling range.



Chips & Coolant Disposal Upgrade

- Two screw type removers (4 off for Vc-A130) push swarf or chips continuously to the machine front further reduces chip accumulation inside machine.
- High pressure coolants by Grundfos® MTH4-40 (5 bars/60Hz) offer strong flow (150 liters/min) to flush the swarf away from the bottom guarding for Vc-A85/A110 so as to minimize chip built-up for smooth and continuous machining.
- Large coolant tank minimums heat build-up for higher machining accuracy.
- Dual layer design on the machine base and bottom guarding minimize the coolant leakage to assure a clean and clear working environment.

Machine Options

Chip conveyor

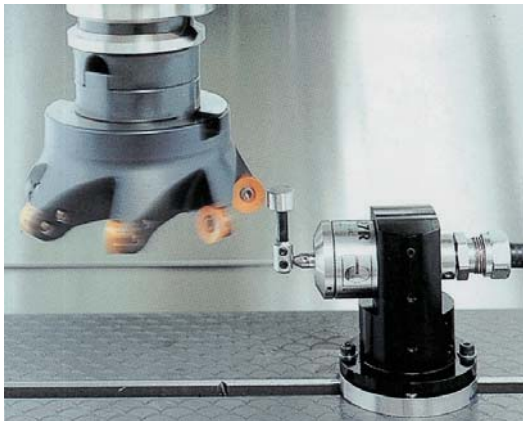
Different type of chip conveyors are required for various part materials. Victor's offer chip conveyor takes chip flushed by the high pressure coolants to the machine front and disposes to the left side of machine.

Coolant through spindle (CTS)

For improved deep hole drilling and boring capability, coolant can be forced through the center of the spindle under the high pressure (20 bars/60Hz by Grundfos pump CRK2-180) directly to the cutting area. To ensure long and reliable running of this system, fine particles produced during machining must be filtered out to prevent damage to the spindle. Victor's customized cleaning system by centrifugal dispersion or replaceable filter cores is far more reliable with less maintenance than conventional system to avoid the fine particles flowing into the spindle.

Stop blocks for oil hole coolants

As an alternative to CTS, it is possible to supply coolant through the tool holder by using a stop block located on the spindle nose. High pressure coolant can be supplied with no need for higher cost filter system as coolant bypassed the spindle.



Auto tool length measurement

To reduce tool set-up time, Victor offers two automatic tool length measuring systems:

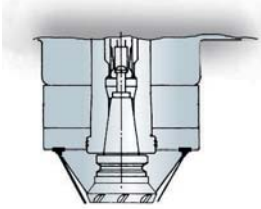
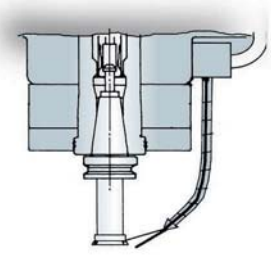
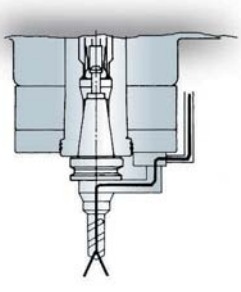
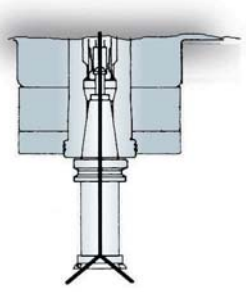
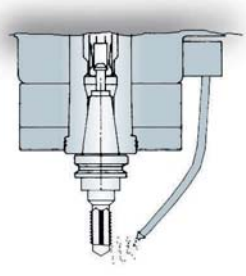
Auto tool length measurement

Metrol® system T-20B is mostly used for tapping and drilling as the probe only measures the tool length.

Advance tool length measurement

Renishaw® system TS-27R offers further advancement with the probe capable of measuring both tool lengths and diameters. This system is ideal for batch production where tools need to be constantly changed or replaced.

Coolant options

Std-coolant ring Purpose-general	Opt.-directional pipe Purpose-general	Opt.-oil hole coolant Purpose-drilling, boring	Opt.-coolant thru spindle Purpose-drilling, boring	Opt.-oil mist Purpose-tapping, reaming
				

Auto part measuring

To reduce time spent setting workpiece positions and then manually inspecting finished parts, which would be better invested in machining, the automatic part measuring is available with the use of Renishaw® MP10 or OMP-60 measuring probes. With the system provided by Victor, the workpiece position can be identified with the probe and work offsets automatically updated, enabling parts to be made right first time. During batch production in-processing checking can be performed on the machine, while for optimum accuracy in machining part inspection can be done after roughing so that finished part can maintain tight tolerances.

Higher spindle speed by DCS or DDS (motor-spindle)

15000 rpm spindle speed by DCS (directly coupled spindle) is available and higher speed 18000 rpm or 20000 rpm spindle by DDS (Direct Drive Spindle) with HSK-A63 tooling is also available to improve the surface finish and accuracy by reducing the spindle run-out.

Fully enclosed guarding with optional CE marked requirement

4th/5th axis CNC rotary or tilting tables

CNC rotary tables can be easily installed to improve the application range. Four axes simultaneous machining for multiple faces can be realized with a single set-up. The 5th axis tilting table is also available with tilting as well as rotary function. 18i-MB5 or 16i control will be required for 5 axis simultaneous machining.

Linear scales for improved repeatability

Linear scales offer exceptional positioning accuracy up to 0.005 mm over full stroke. Only Heidenhain linear scales with a thermal behavior similar to that of the machine are selected to compensate for the thermal expansion and to enhance repeatability. Sealed encoders with durable Aluminum housing offer improved reliability and service life.

Spindle oil cooler (STD)

Cooling oil circulates around the spindle cartridge constantly to maintain the low temperature during the spindle rotation.

A/C on electrical cabinet (STD)

Air conditioner is installed on the electrical cabinet to ensure ultimate reliability for control system.

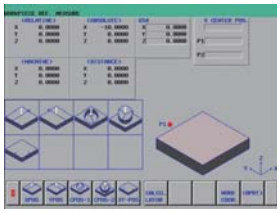
VICTOR Taichung's NC PACKAGE

Fanuc 0i-MD/31i-B controls

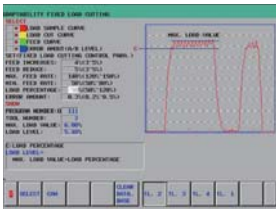
With 10.4" color display included as standard, Victor Taichung's Fanuc control package includes conversational function MANUAL GUIDE I to reduce the programming time for easier operation. Through the latest technology for AI contouring control (AICC), Fanuc 0i-MD control is capable of addressing look-ahead up to 200 blocks to offer optimal reliability with the highest level of machine integration.
With PLC developed in-house by highly experienced engineers, Vcenter-A72/A85/A110/A130 further include AICC-2 as standard for addressing look ahead 200 blocks for maximizing the machine efficiency to meet the demands for most productions. For higher speed and precision, the control option Data Server board can be installed to extend the memory length for upgrading the data transfer rate. The machine controller can be upgraded to 31i-B control which is capable of addressing 600 blocks as standard and optionally 1000 blocks available by the so-called AICC-2 with HSP function (High Speed Processing) to further reduce the block addressing time for better surface finish.

VSS (Victor Software System) Macros

With exclusive software developed in-house by highly experienced engineers, VSS macros enhance not only machine operation to reduce tool set-up time but also safety features to protect costly spindle. Productivity can be further increased when the adaptive controlled cutting is implemented.

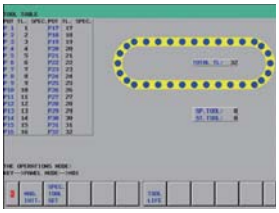


Smart workpiece measurement



Adaptive cutting at constant loading

Air Bag (abnormal load monitoring)



Graphic tool management

Heidenhain iTNC-530 control

Powerful dialog programming (SmartNC®) with fully alphanumeric keyboard, Heidenhain control iTNC-530 HSCI is also available on Vcenter A series machining centers. Without remembering complicated G codes, the sophisticated graphic functions with 15" TFT monitor make programming check easy. Hiedenhain iTNC-530 control is capable of addressing 256 blocks and further makes use of hard drive memory for advanced 4 or 5 axis simultaneous controls.

Control features for fast contour milling (Victor Taichung's standard)

Feature \ Controller	Fanuc				Heidenhain
	0i-MD	32i-B	18i-MB	31i-B	iTNC-530 HSCI
Block addressing time	2 ms (by AICC-2)	2 ms	2 ms (Opt. 0.4 ms)	0.4 ms	0.5 ms
Data storage	1280m (512kB) Opt. 5120m (2MB)	1280m (512kB) Opt. 5120m (2MB)	2560m (1MB) Opt. 5120m (2MB)	2560m (1MB) Opt. 10240m (8MB)	26GB (hard drive)
Data server (Memory extension)	Opt. (by CF Card)	Opt. (by CF card)	Std.	Std. (by CF card)	No
Ethernet link	Std.	Std.	Std.	Std.	Std.
Preview Contouring (look ahead blocks)	200 (with AICC-2)	200	180 (Opt. 600 by HPCC)	600 (Opt. 1000 by HSP)	256
Graphic display	10.4"	10.4"	10.4"	10.4"	15"
Conversational function	Manual guide i + VSS Macro	Manual guide i	Manual guide i	Manual guide i	Std. + SmartNC
Data transfer interface	PCMCIA + USB	PCMCIA + USB	PCMCIA port	PCMCIA + USB	USB port

VICTOR's FANUC 0i-MD/32i-B/31i-B Control SPECIFICATIONS

Standard

ITEM	SPECIFICATION	DESCRIPTION
Controlled Axes		
1.	Controlled Axes	3 Axes (X, Y, Z)
2.	Simultaneous Controlled Axes	Position / Linear interpolation / Circular interpolation (3 / 3 / 2)
3.	Least Input Increment	0.001 mm / 0.0001 inch / 0.001 deg.
4.	Least Input Increment 1 / 10	0.0001 mm / 0.00001 inch / 0.0001 deg.
5.	Max. command value	±99999.999mm (±9999.9999in)
6.	Fine Acceleration & Deceleration Control	Std.
7.	High Speed HRV Control	Std.
8.	Inch / Metric Conversion	Std. (G20 / G21)
9.	Interlock	All Axes / Each Axis / Cutting Block Start
10.	Machine Lock	All Axes / Each Axis
11.	Emergency Stop	Std.
12.	Over-travel	Std.
13.	Stored Stroke Check 1 and Check 2	Std.
14.	Mirror Image	Each Axis
15.	Mirror Image M73, M74, M75, M76	X, Y Axes
16.	Follow-up	Std.
17.	Position switch (with Victor's own PLC)	Std.
Operation		
1.	Automatic Operation	Std.
2.	MDI Operation	MDI B
3.	DNC Operation	Reader / Puncher Interface is Required
4.	DNC Operation with Memory Card	PCMCIA Card Attachment is Required
5.	Program Number Search	Std.
6.	Sequence Number Search	Std.
7.	Sequence Number comparison and stop	Std.
8.	Buffer Register	Std.
9.	Dry Run	Std.
10.	Single Block	Std.
11.	JOG Feed	Std.
12.	Manual Reference Position Return	Std.
13.	Manual Handle Feed	1 Unit / Each Path
14.	Manual Handle Feed Rate	X1, X10, X100
15.	Z Axis Neglect	Std.
Interpolation		
1.	Positioning	G00
2.	Single Direction Positioning	G60
3.	Exact Stop Mode	G61
4.	Exact Stop	G09
5.	Linear Interpolation	G01
6.	Circular Interpolation	G02, G03 (multi-quadrant is possible).
7.	Dwell	G04
8.	Helical interpolation	Std.
9.	Skip Function	G31
10.	Reference Position Return	G28
11.	Reference Position Return Check	G27
12.	2nd / 3rd / 4th Reference Position Return	Std.
Feed		
1.	Rapid Traverse Rate	Std.
2.	Rapid Traverse Override	F0, 25%, 50%, 100%
3.	Feed Per Minute	G94 (mm / min)
4.	Tangential Speed Constant Control	Std.
5.	Cutting Feed rate Clamp	Std.
6.	Automatic Acceleration / Deceleration	Rapid traverse: linear; Cutting feed: exponential
7.	Rapid traverse Bell–shaped Acc. / Deceleration	Std. (G00)
8.	Bell–shaped Acc. / Deceleration Before & After Cutting Feed Interpolation	Std. (G01)
9.	Automatic Corner Deceleration	Std. (G64)
10.	Linear Acc / Deceleration Before & After Cutting Feed Interpolation	Std. (G01)
11.	Feed rate Override	0 ~ 150%
12.	Jog Override	0 ~ 100%
13.	Automatic Corner Override	G62.
14.	Feed Stop	Std.
15.	AI contour control (AICC, G05.1) (in total)	200 blocks (0i/32i with AICC-2)
16.	AICC-2 + High speed processing (G05.1) (in total)	600 blocks (31i)
17.	Jerk Control	Std. (18i/31i)
18.	Rigid Tapping Bell–Shaped Acc./Deceleration	Std.
19.	Feed rate clamp by arc radius (G02/G03)	Std.
Program Input		
1.	EIA / ISO Automatic Recognition	Std.
2.	Label Skip	Std.
3.	Parity Check	Std.
4.	Control In / Out	Std.
5.	Optional Block Skip	1
6	Max. Programmable Dimension	±8-Digit
7.	Program Number	O4-Digit
8.	Sequence Number	N5-Digit
9.	Absolute / Incremental Programming	G90 / G91
10.	(Pocket Calculator Type) Decimal Point Programming	Std.
11.	Input Unit 10 Time Multiply	Std.
12.	Plane Selection	G17, G18, G19
13.	Rotary Axis Designation	Std.
14.	Rotary Axis Roll-Over Function	Std.
15.	Polar coordinate Command	G16
16.	Coordinate System Setting	Std.
17.	Automatic Coordinate System Setting	Std.
18.	Work piece Coordinate System	G52, G53, G54 ~ G59
19.	Addition of Workpiece Coordinate System Pair	48 Pairs
20.	Manual Absolute On And Off	Std.
21.	Optional Chamfering / Corner R	Std.
22.	Programmable Data Input	G10
23.	Sub Program Call	4 (0i/32i) or 10 (31i) folds nested
24.	Custom macro B	Std.
25.	Addition of Custom Macro Common Variables	#100–#199,#500–#999
26.	Canned Cycles For Milling	G73 / G74 / G76, G80-G89, G98 / G99
27.	Small hole peck drilling cycle	G83
28.	Circular Interpolation by R Programming	Std.
29.	Program Format	FANUC std. format
30.	Program Stop / Program End	M00 / M01 / M02 / M30
31.	Reset	Std.
32.	Scaling	G51
33.	Coordinate System Rotation	G68
Auxiliary Spindle Speed Function		
1.	Auxiliary Function Lock	Std.
2.	High Speed M / S / T Interface	Std.
3.	Spindle Speed Function	Std.
4.	Spindle Override	50 ~ 120%
5.	1st Spindle Orientation	Std.
6.	M Code Function	M3 digit
7.	S Code Function	S5 digit
8.	T Code Function	T2 digit
9.	Rigid tapping	Std.
Tool Function & Tool Compensation		
1.	Tool Function	T8 digit
2.	Tool Offset Pairs	±6-digit, 400 (0i/32i), 999 (31i)
3.	Tool Offset Memory C	Std. (D/H codes are separated)
4.	Tool Length Compensation	G43-G44, G45-G48, G49
5.	Cutting Compensation C	Std.
Accuracy Compensation		
1.	Backlash Compensation	Rapid Traverse / Cutting Feed
2.	Stored Pitch Error Compensation	Std.
Edit Operation		
1.	Part Program Storage Length (in total)	1280m (512KB) (0i/32i), 2560m (31i)
2.	Number of Registerable programs (in total)	400 (0i/32i),1000 (18i/31i)
3.	Part Program Editing / Protect	Std.
4.	Background Editing	Std.
Setting and Display		
1.	Status Display	Std.
2.	Clock Function	Std.
3.	Current Position Display	Std.
4.	Program Display	Program name 31 characters
5.	Parameter Setting and Display	Std.
6.	Self Diagnosis Function	Std.
7.	Alarm Display	Std.
8.	Alarm History Display	25
9.	Operation History Display	Std.
10.	Help Function	Std.
11.	Run Hour and Parts Count Display	Std.
12.	Actual Cutting Feedrate Display	Std.
13.	Display of Spindle Speed and T Code At All Screens	Std.
14.	Graphic Function	Std.
15.	Dynamic graphic display	Std.
16.	Servo Setting Screen	Std.
17.	Spindle Setting Screen	Std.
18.	Display of Hardware and Software Configuration	Std.
19.	Multi-Language Display	Std.
20.	Data Protection Key	Std.
21.	Erase CRT Screen Display	Std.
22.	Machining Condition Selecting Screen	Std.
23.	Color LCD / MDI	10.4" (0i/32i/31i)
Data Input / Output		
1.	Reader / Puncher Interface	RS-232 interface
2.	External Work piece number search	9999
3.	Memory Card Interface	Std.
4.	Embedded Ethernet (10Mbps)	Std.

OPTIONS

ITEM	SPECIFICATION	DESCRIPTION		
With hardware included		**0i-MD**	**32i-B**	**31i-B**
1.	Conversational programming (Manual Guide i)	Std.	Std.	Std.
2	Conversational programming (Super Cap i)	N.A.	N.A.	N.A.
3.	Data server (with PCB and CF card 1GB)	□	Std.	Std.
4.	Fast Ethernet (100Mbps, available in Data server)	□	Std.	Std.
5.	Tool life management (2 buttons on control panel)	□	□	□
6.	Part Program Storage Length 5120m (2MB in total)	□	□	□
7.	Part Program Storage Length 8MB in total	N.A.	N.A.	□
8.	Program restart	□	□	□
9.	Optional block skip 9 blocks	□	□	□
10.	High Precision Contour Control (HPnanoCC, with RISC board)*1	N.A.	N.A.	Std.
11.	Profibus	□	□	□
12.	USB Device	□	Std.	Std.
13.	5-axis simultaneous control	N.A.	N.A.	□ (31i-B5)
Without hardware included				
14.	AI contour control II (AICC-2, G05.1, 200 blocks) *2	Std.	Std.	Std.
15.	Look ahead block expansion (1000 blocks in total) *2	N.A.	N.A.	□
16.	Tool load monitoring (with Victor own PLC)	□	□	□
17.	Programmable mirror image (G50.1)	□	□	□
18.	Bi-directional Pitch Error Compensation	□	□	□
19.	Addition of tool pairs for tool life management 512 sets	N.A.	□	□
20.	Cylindrical interpolation (G7.1) (used on 4th-axis)	Std.	□	□
21.	Interruption type custom macro	N.A.	□	□
22	Addition of work-piece coordinate systems 300 sets	N.A.	N.A.	□
23.	Exponential interpolation (G2.3)	N.A.	N.A.	□
24.	Smooth interpolation	N.A.	N.A.	□
25.	Spiral/conical interpolation	N.A.	N.A.	□
26.	Polar coordinate interpolation	N.A.	□	□
27.	Floating reference position return	N.A.	N.A.	□
28.	Hypothetical axis interpolation (G07)	N.A.	N.A.	□
29.	Tool retract and return (G10.6 with Victor own PLC)	N.A.	N.A.	□
30.	NURBS interpolation (only avail. in HPCC/RISC)	N.A.	N.A.	□

*1. Block addressing time:
- 2ms for AI nano CC (max. cutting feed 30m/min. 18i-B), and AICC-2 (0i-D/31i-B)
- 1ms for HPCC (max. cutting feed 60 m/min) (18i-B)
- 0.4ms for AI HPCC and AI nano HPCC (150m/min) (18i-B) and AICC-2+ High speed processing (31i-B)

Machine Specification

Item	Units	Vcenter-A72	Vcenter-A85	Vcenter-A110	Vcenter-A130
Travel					
X axis travel	mm	720	850	1100	1300
Y axis travel	mm	480	600	600	780
Z axis travel	mm	660	560	560	700
Distance					
Spindle center to column	mm	500	720	720	770
Spindle nose to table surface	mm	150 ~ 810	150 ~ 710	150 ~ 710	100 ~ 800
Table					
Table work area	mm	800 x 460	1100 x 600	1350 x 600	1400 x 700
Dimension of T-slot	mm	4 x 18 x 100	6 x 18 x 100	6 x 18 x 100	7 x 18 x 100
Max. table load	kg	500	1000	1200	1500
Spindle					
Spindle taper		BT-40	BT-40	BT-40	BT-40
Spindle motor - cont / 30 / 10min	kW	7.5 / 11 / 15 Opt. 15 / 18.5 / -	7.5 / 11 / 15 Opt. 15 / 18.5 / -	7.5 / 11 / 15 Opt. 15 / 18.5 / -	7.5 / 11 / 15 Opt. 15 / 18.5 / -
Spindle speed	rpm	12000 (Opt. 15000)	12000 (Opt. 15000)	12000 (Opt. 15000)	12000 (Opt. 15000)
Feed rate					
Rapid feed rate - X / Y / Z	m/min	48 / 48 / 48 36 / 36 / 36 (Heidenhain)	42 / 42 / 42	42 / 42 / 42	36 / 36 / 36
Axis acceleration - X / Y / Z	m/sec^2	0.5G / 0.5G / 0.75G	0.5G / 0.5G / 0.75G	0.5G / 0.5G / 0.75G	0.5G / 0.5G / 0.6G
Axis feed motor - X / Y / Z	kW	4.5 / 4.5 / 5.5	4.5 / 4.5 / 5.5	4.5 / 4.5 / 5.5	4.5 / 4.5 / 5.5
Cutting feedrate by table	m/min	10 (Opt. 15)	10 (Opt. 15)	10 (Opt. 15)	10 (Opt. 15)
X ballscrew (dia. x pitch)	mm	40 x P12	45 x P16 (Opt. P8)	45 x P16 (Opt. P8)	45 x P12
Y ballscrew	mm	40 x P12	45 x P16 (Opt. P8)	45 x P16 (Opt. P8)	45 x P12
Z ballscrew	mm	40 x P12	45 x P16 (Opt. P8)	45 x P16 (Opt. P8)	45 x P12
Linear guide width (X / Y / Z)	mm	30 / 35 / 35	45 / 45 / 45	45 / 45 / 45	45 / 35 / 55
Tools					
Max. tool length	mm	300	300	300	300
Max. tool weight	kg	7	7	7	7
Magazine capacity		24 (Opt. 32)	24 (Opt. 32)	24 (Opt. 32)	24 (Opt. 40)
Max. tool diameter (without adjacent tools)	mm	76 (125)	80 (125)	80 (125)	76 (125)
Tool exchange time	sec.	2.4 (T-T), 5.4 (C-C)	2.4 (T-T), 5.5 (C-C)	2.4 (T-T), 5.5 (C-C)	2.4 (T-T), 5.5 (C-C)
Pull stud angle	deg.	15 (JIS 40P)	15 (JIS 40P)	15 (JIS 40P)	15 (JIS 40P)
Tool selection method		Random	Random	Random	Random
Machine					
Power requirement	kVA	40 (excl. CTS)	40 (excl. CTS)	40 (excl. CTS)	40 (excl. CTS)
Min/Max. air pressure	kg/cm^2	5.5 ~ 6.5	5.5 ~ 6.5	5.5 ~ 6.5	5.5 ~ 6.5
Coolant tank capacity	L.	400	510	550	650
Std. NC controller (Fanuc)		0i-MD (10.4")	0i-MD (10.4")	0i-MD (10.4")	0i-MD (10.4")
Floor space requirement (with conveyor)	mm	3949 x 2676	4227 x 3570	4827 x 3570	5400 x 4303
Max. machine height	mm	2909	2785	2785	3102
Machine weight	kg	5500	7070	7400	11000

Standard accessories:

- Fully enclosed splash guard
- **Fanuc 0i-MD (10.4") control**
- Spindle oil cooler
- Air conditioner for electric cabinet
- Two screw-type chip removers (4 off for Vcenter-A130)
- Rigid tapping
- Remote MPG
- Hand tools and toolbox
- T nuts for table slot
- 3-step warning light
- Auto power off system
- Leveling blocks
- **Oil skimmer**
- Air gun
- Coolant gun

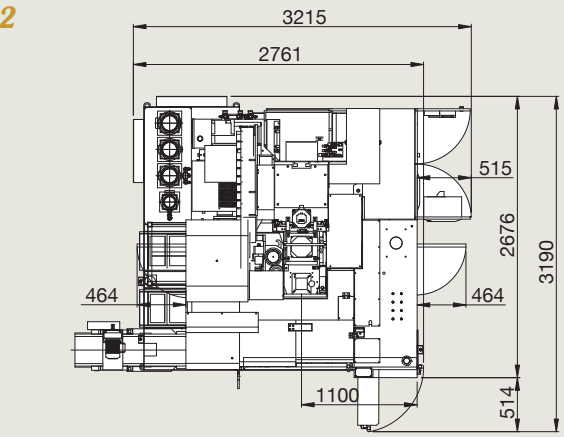
Optional accessories:

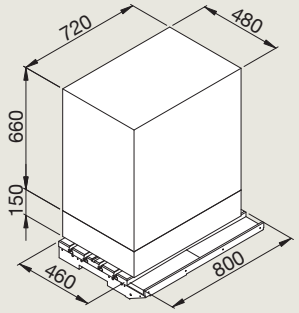
- Air dryer
- Chip conveyor with cart
- High-powered spindle motor
- 15000 rpm spindle (DCS)
- Coolant through spindle (CTS)
- 32 or 40 tool magazine
- Linear scales
- Auto tool length measurement
- Stop block for special tools
- $4^{th}/5^{th}$ axis interface
- Rotary tables
- Auto part measuring
- Auto door
- Fanuc 31i / Heidenhain iTNC-530 control

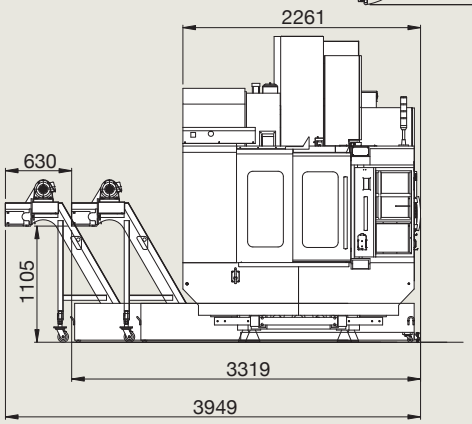
Machine Layout

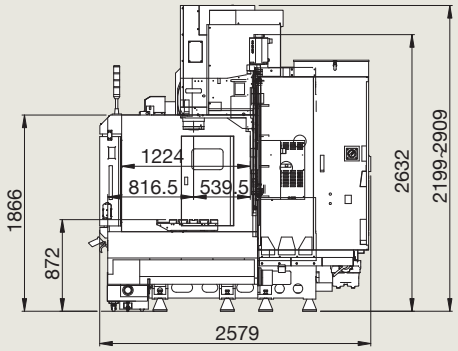
VICTOR-TAICHUNG

Vcenter-A72



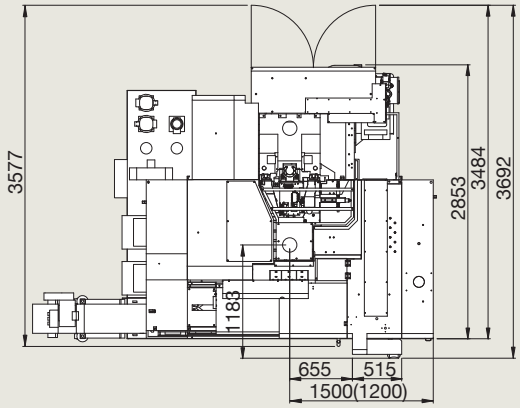


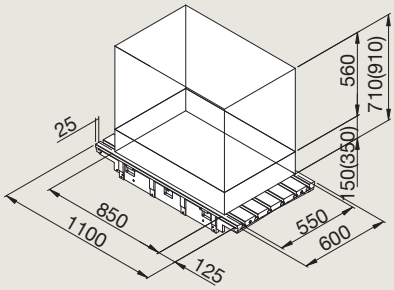


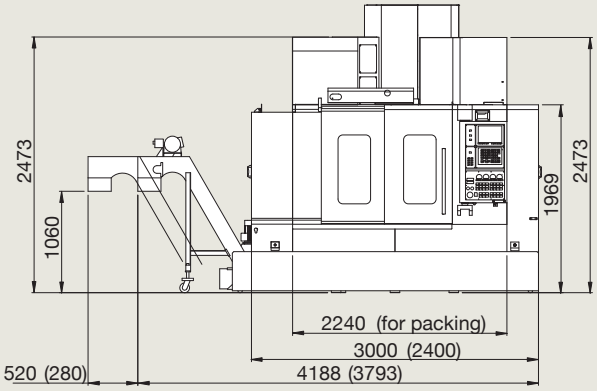


Unit:mm

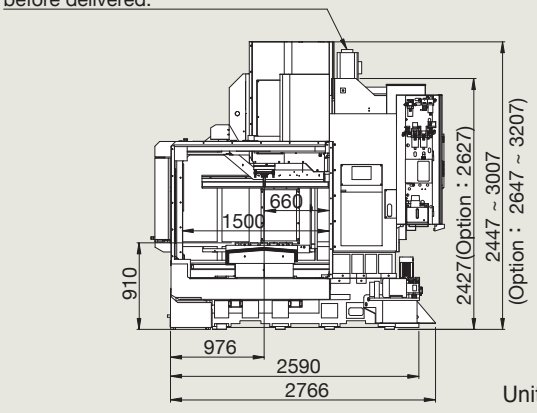
Vcenter-A110 (Vcenter-A85)





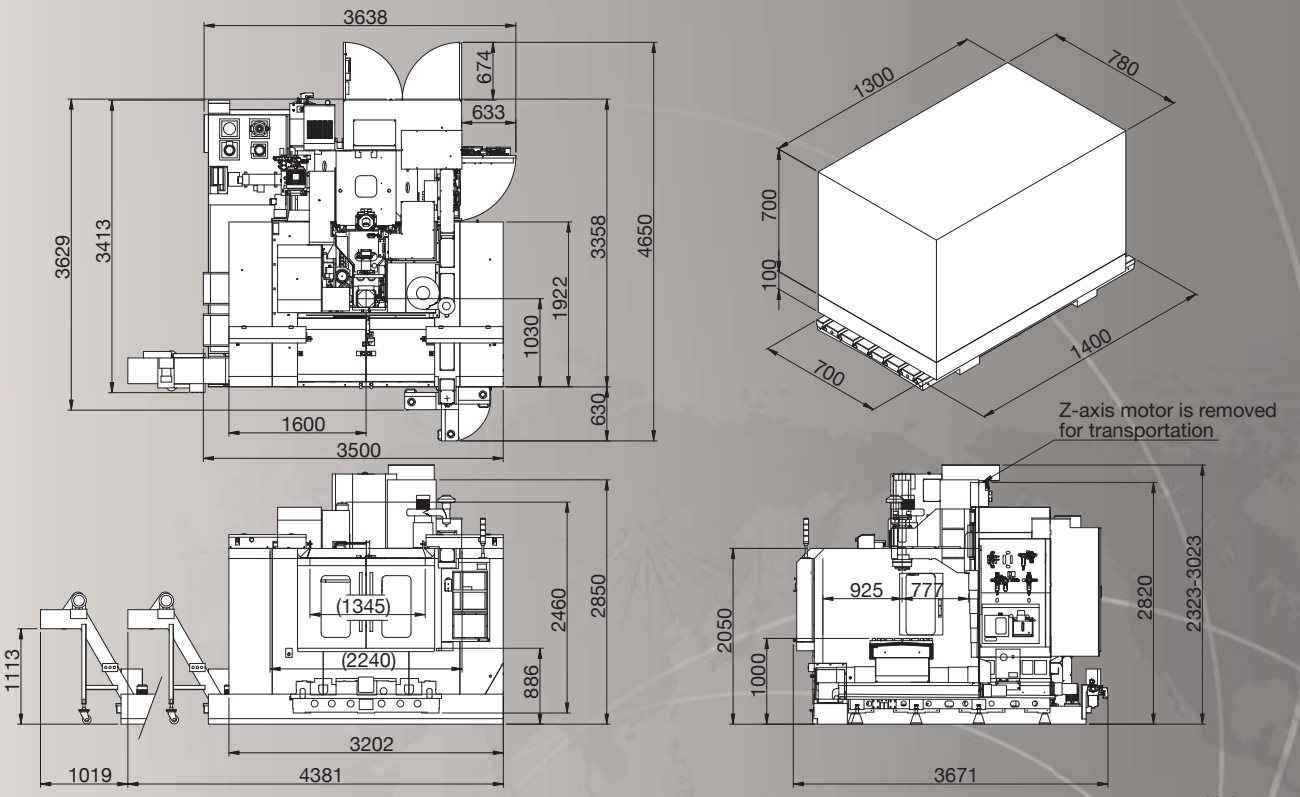


The servo motor of Z-axis should separated before delivered.



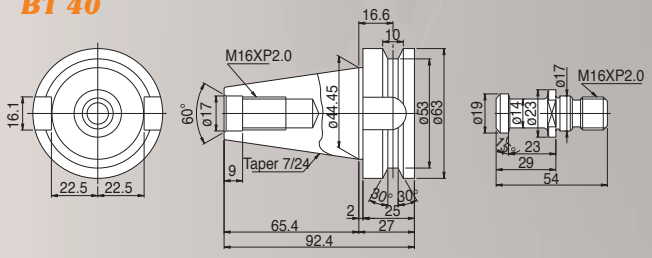
Unit:mm

Vcenter-A130



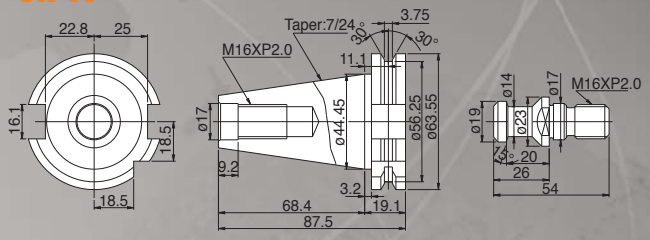
Tool Shank

BT 40



MAS-P40T JIS B6339 40P

SK 40



DIN69871A-SK40 DIN69872A

VictorTaichung profile:
Sales turnover: USD 230 mil's (in 2011)*
No. of employees: 1091
*Exchange rate: 1 USD=30 TWD.

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VictorTaichung was also marketed under the brand names VICTOR (outside North America) and FORTUNE

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